SERVICE DATA
FILE NO. 170-279

TOSHIBA

COMPACT DISC DIGITAL AUDIO PLAYER

XR-9117/9127

SPECIFICATIONS

Type:	Compact Disc Player with optical pickup
Quantization:	16 bit linear
Channels:	2 channels (stereo)
Frequency response:	5 Hz – 20kHz ±0.5 dB
Dynamic range:	94 dB
Total harmonic distortion:	0.004% (1 kHz)
Channel separation:	90 dB
Wow and flutter:	Unmeasurable
Output:	2.0 Volts
Pickup:	Semiconductor laser
Track search:	By track number

Power supply:	AC 120V, 60 Hz (U.S.A./Canada) AC 220V, 50 Hz (Europe) AC 240V, 50 Hz (U.K.)
Power consumption:	10 Watts
Dimensions:	420 (W) x 66 (H) x 312.5 (D) mm
Weight:	3.2 Kg
Accessories:	Connection cable (pin plugs) x 1 Remote control unit x 1 (only XR-9127)

Specifications are subject to change without notice.

XR-9127: TA, TC, TE, TU/XR-9117: TE, TU

PRINTED IN JAPAN 22905735 Aug., 1987 Ⓢ

CAUTION
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT LOOK INTO THE OPTICAL LENS AT ANYTIME.

OBS! Apparaten innehåller laserkomponent som avger laserstrålning överstigande gränsen för laserklass 1.

"CLASS 1 LASER PRODUCT"

ADVARSEL

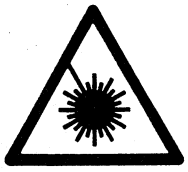
Denne mærkning er anbragt udvendigt på apparatet og indikerer, at appapatet arbejder med laserstråler af klasse 1, hvilket betyder, at der anvendes laserstråler at svageste klasse, og at man ikke på apparatets yderside kan blive udsat for utilladelig kraftig stråling.

APPARATET BOR KUN ÅBNES AF FAGFOLK MED SAERLIGT KENDSKAB TIL APPARATER MED LASERSTRÅLER!

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDER ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

Indvendigt i apparatet er anbragt den her gengivne advarselsmærkning, som advarer imod at foretage sådanne indgreb i apparatet, at man kan komme til at udsætte sig for laserstråling.

Varoitus: Laite sisältää laserdiodin, joka lähettää näkymätöntä silmille vaarallista lasersäteilyä.



CAUTION: This equipment contains a laser diode which causes invisible laser radiation, which is dangerous to eyes.
Inside of the equipment, there is a warning marking of laser radiation.

"CLASS 1 LASER PRODUCT"

CAUTION: This model is classified as a "CLASS I LASER PRODUCT".

CLASS 1 LASER PRODUCT

SERVICE DATA
FILE NO. 170-279

AU22

TOSHIBA

COMPACT DISC DIGITAL AUDIO PLAYER

XR-9127

SPECIFICATIONS

Type:	Compact Disc Player with optical pickup
Ouantization:	16 bit linear
Channels:	2 channels (stereo)
Frequency response:	5 Hz – 20kHz ±0.5 dB
Dynamic range:	94 dB
Total harmonic distortion:	0.004% (1 kHz)
Channel separation:	90 dB
Wow and flutter:	Unmeasurable
Output:	2.0 Volts
Pickup:	Semiconductor laser
Track search:	By track number

Power supply:	AC 120V, 60 Hz (U.S.A./Canada) AC 220V, 50 Hz (Europe) AC 240V, 50 Hz (U.K.)
Power consumption:	10 Watts
Dimensions:	420 (W) x 66 (H) x 312.5 (D) mm
Weight:	3.2 Kg
Accessories:	Connection cable (pin plugs) x 1 Remote control unit x 1 (only XR-9127)

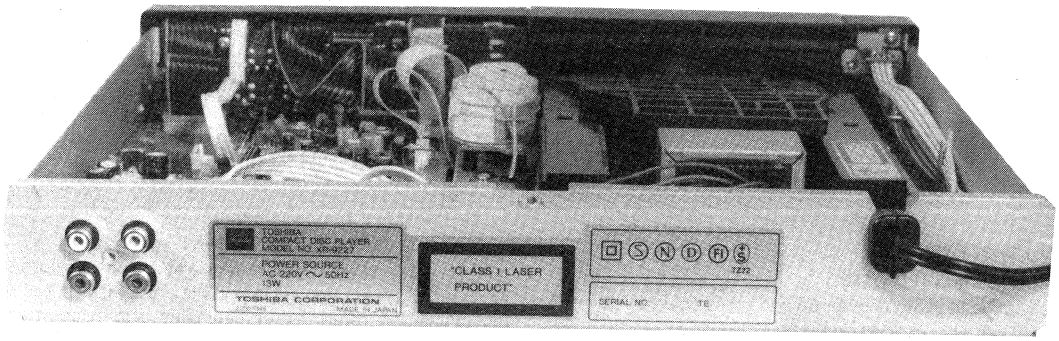
Specifications are subject to change without notice.

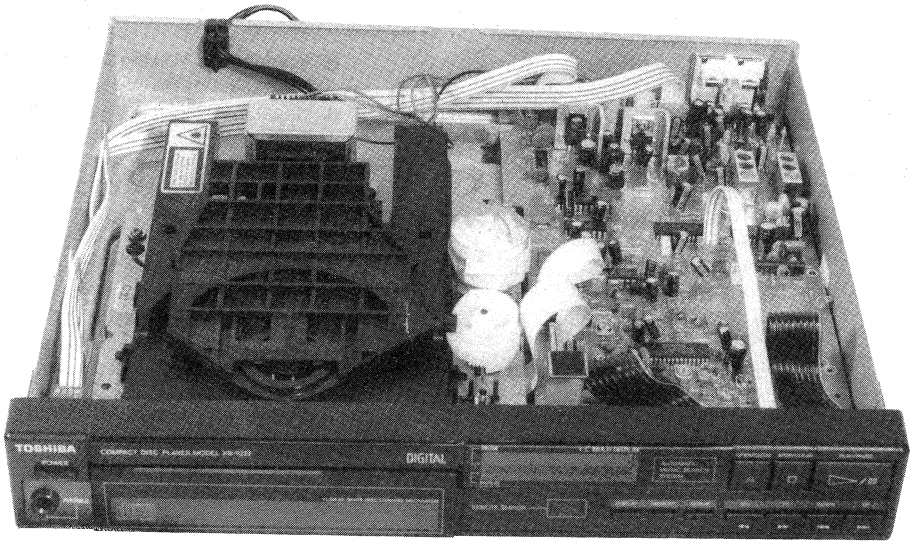
XR-9127: TA, TC, TE, TU/XR-9117: TE, TU

PRINTED IN JAPAN 22905735 Aug., 1987 Ⓢ

RADIO INTERFERENCE REGULATIONS

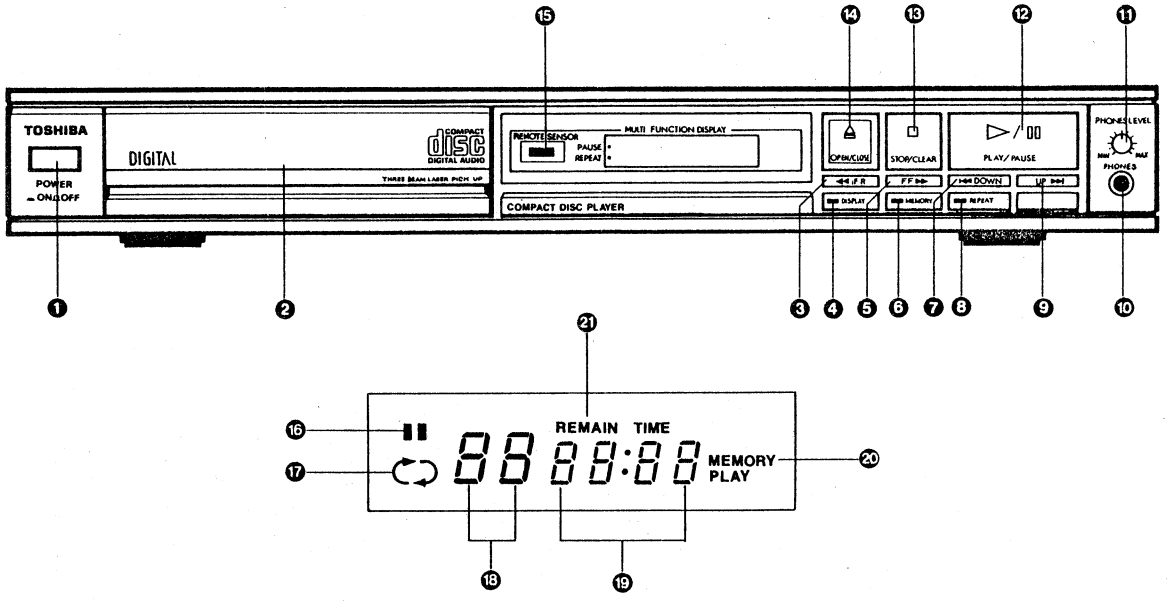
THIS APPARATUS HAS BEEN PRODUCED TO COMPLY WITH "DIRECTIVE NO. 82/499/EEC".





CAUTION: Before returning the unit to the customer, check that the resistance between both blades of AC plug and any accessible metal parts is more than 3MΩ after completion of servicing, using the circuit tester. (U.S.A. model only)

OPERATING CONTROLS



Front Panel Controls

❶ Power Switch [POWER]
Press once to switch power on and press again to switch power off.

Note:
OFF position: This unit remains connected to mains supply in the OFF position. Disconnect the power cord when the unit is not going to be used for a long time.

❷ Disc Tray

❸ Reverse Key [FR]
The pickup moves rapidly backward as long as this key is held down. The FR key is used in the same manner as the FF key.

❹ Display Selector Key [DISPLAY]
The following three display modes are selected one at a time each time the DISPLAY key is pressed. (Note that memory mode display cannot be selected until a track number has been stored in memory.)

1. Current track ... Display of current track and elapsed play time from the beginning of each track.
2. Remain time ... Display of the remaining time to the end of the disc and remaining track. Note that remaining time is not displayed during memory play mode.
3. Memory ..... Display of memory contents. Note that this display mode cannot be selected while the memory is still empty.

❺ Fast Forward Key [FF]
The pickup moves rapidly forward as long as this key is held down and sound from the disc is heard as the pickup moves over the disc. Disc play resumes at the point where this key is released. If the player is in the pause mode when this key is pressed, the player will return to the pause mode when the key is released. In the memory play mode, the pickup will rapidly move over the tracks in the order they are programmed in the memory.

❻ Memory Key [MEMORY]
Use this key to store favorite tracks in memory while in the stop mode.

❼ Down Key [DOWN]
Press once during play mode to return to the beginning of the current track, or press in quick succession to return to the beginning of previous tracks.

❽ Repeat Key [REPEAT]
Press once to switch to repeat mode, and press again to cancel repeat mode.

❾ Up Key [UP]
Press once during play mode to advance to the beginning of the next track, or press in quick succession to advance to the beginning of successive tracks after that.

❿ Headphones Jack [PHONES]
For stereo headphones connection.

⓫ Headphones Volume Level Control [LEVEL]
Adjustment of the headphones output volume level.

⓬ Play/Pause Key [PLAY/PAUSE]
Press once to commence disc play, and press again to temporarily stop the disc (pause mode).

⓭ Stop/Clear Key [STOP/CLEAR]
Press to stop disc play, and use this key to cancel the memory.

⓮ Open/Close Key [OPEN/CLOSE]
Press once to open the tray and press again to close it.

⓯ Remote Control Sensor (XR-9027/9127 only)
The remote control unit supplied with the XR-9027/9127 must be operated pointed towards this sensor.

Indicator and Display Section

⓰ Pause Indicator [II]
Comes on when player is switched to pause mode.

⓱ Repeat Indicator [⊂⊃]
Comes on when player is switched to repeat mode.

⓲ Track NO. Indicator
Shows either the number of the track currently being played or the remaining number of tracks on the disc.

⓳ Time Indicator
Shows either the elapsed play time from the beginning of each track or the remaining time to the end of the disc.

⓴ Memory Play Indicator [MEMORY PLAY]
Comes on when player is switched to memory disc play.

㉑ Remaining Time Indicator [REMAIN TIME]
Comes on when remaining disc playing time is displayed.

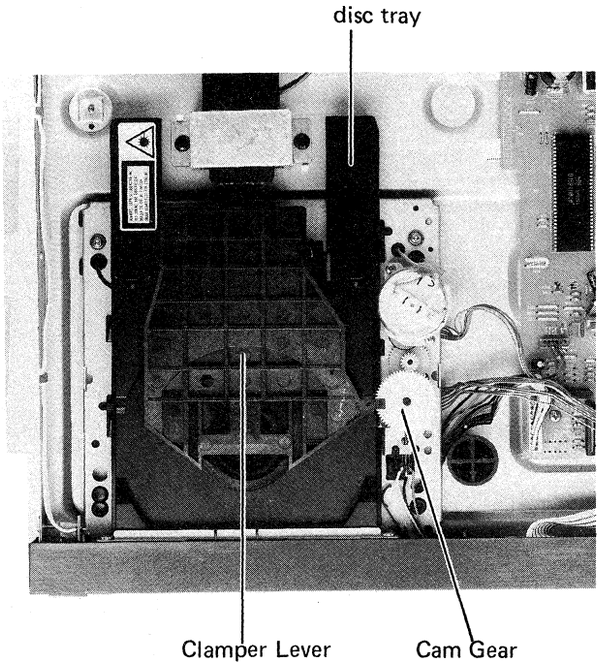
DISASSEMBLY INSTRUCTIONS

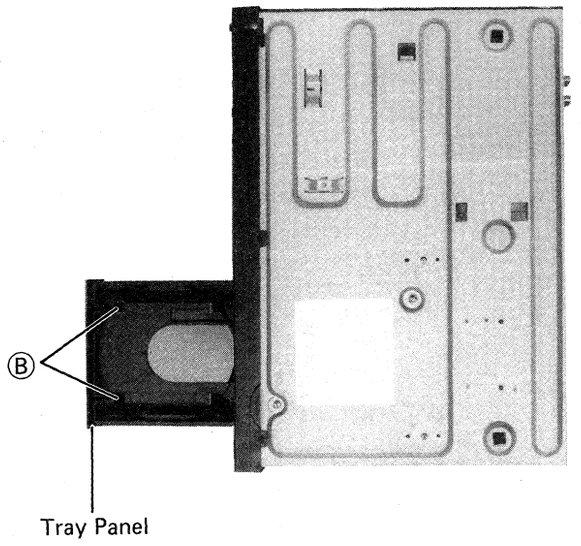
TOP COVER REMOVAL

1. Remove four screws from top cover side boards and one screw from rear side, and the top cover will be removed.

TRAY PANEL REMOVAL

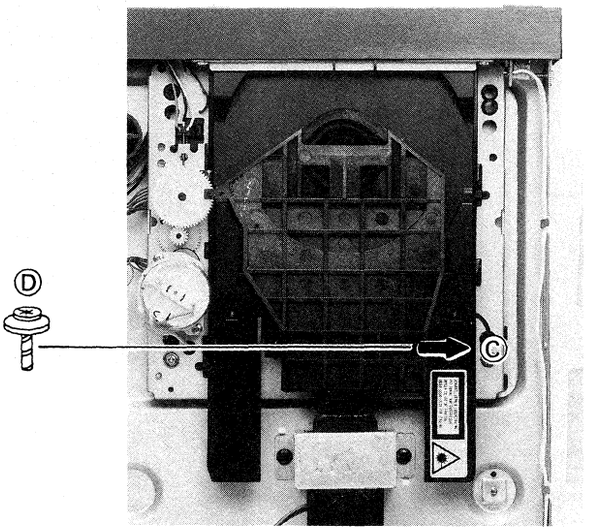
1. Remove top cover.
2. Lift up mechanism assembly clamper lever and pull out disc tray forward by your hand.
3. Release two hooks Ⓑ on tray panel, and the tray panel will be removed.





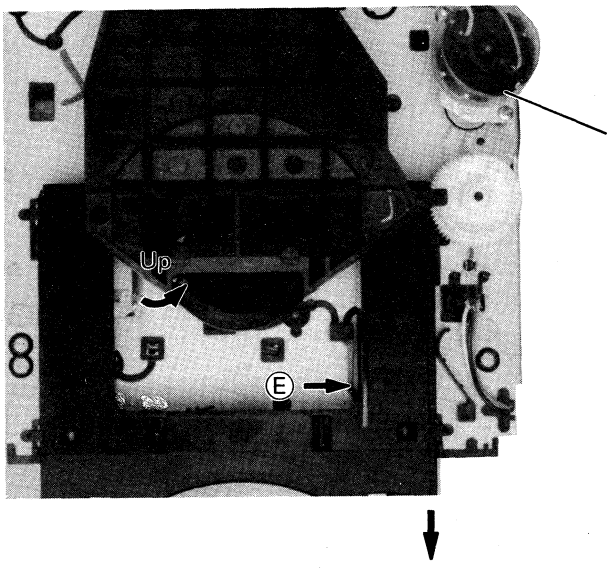
CLAMPER LEVER REMOVAL

1. Push clamper lever hook to arrow Ⓒ direction with minus driver, and the clamper lever will be removed.
2. If hook is broken, use screw with washer Ⓓ (φ3 x 8mm) as illustrated.



DISC TRAY REMOVAL

1. Lift up clamper lever with disc tray in the deepest side and pull disc tray until it stops. Pull disc tray with mechanism main chassis hook pushed to arrow Ⓔ direction, and the disc tray will be removed.

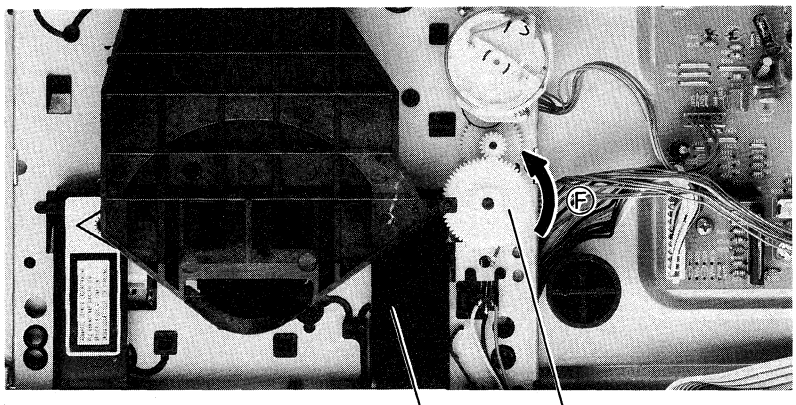


Motor Cover

Note: When replacing motor, mount motor cover.

DISC TRAY MOUNTING PROCEDURE ON MECHANISM

1. Insert disc tray with cam gear turned to counter-clockwise direction Ⓕ fully, and the disc tray can be mounted.

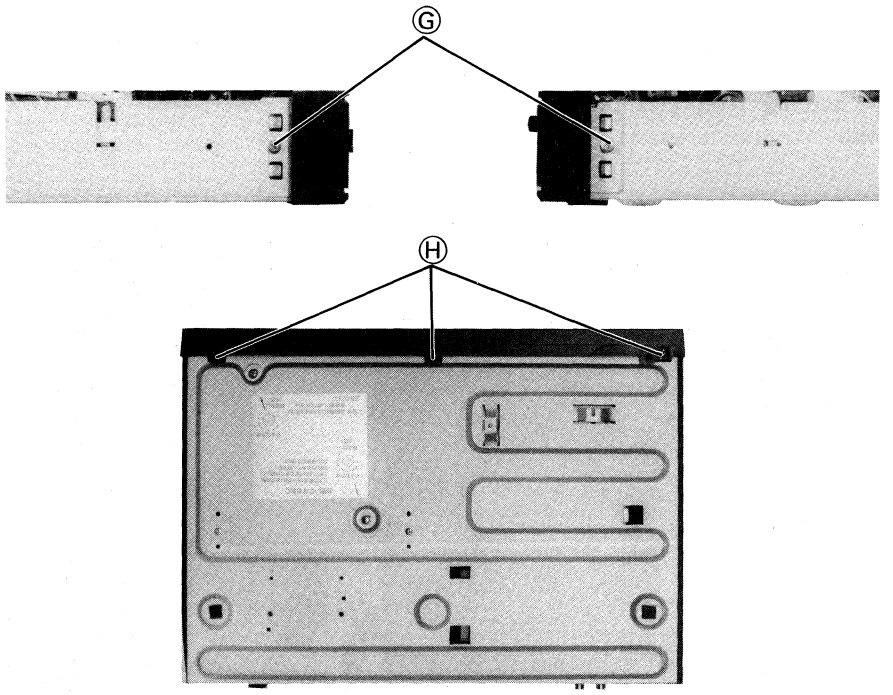


disc tray

Cam Gear

FRONT PANEL ASSEMBLY REMOVAL (with P.C. Board)

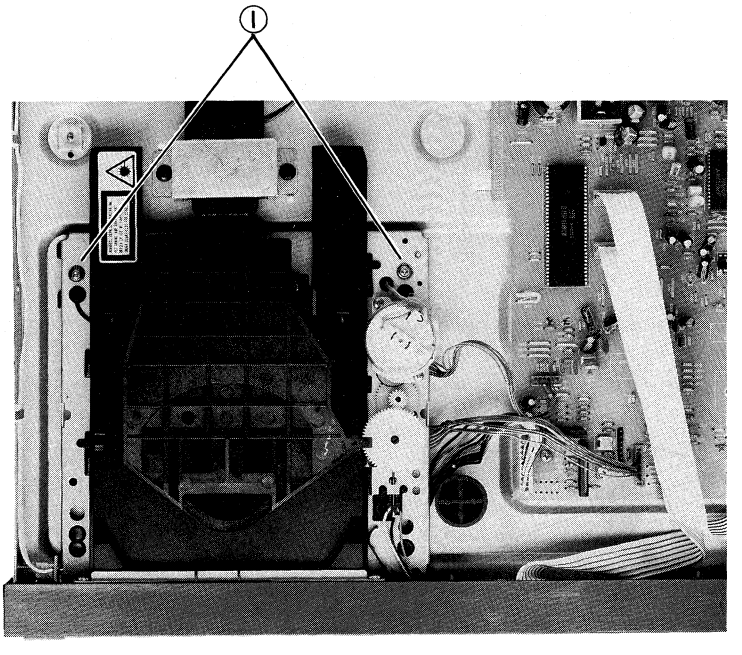
1. Remove top cover and disc tray.
2. Remove five screws Ⓖ and Ⓗ, and the panel assembly will be removed.



MECHANISM ASSEMBLY REMOVAL

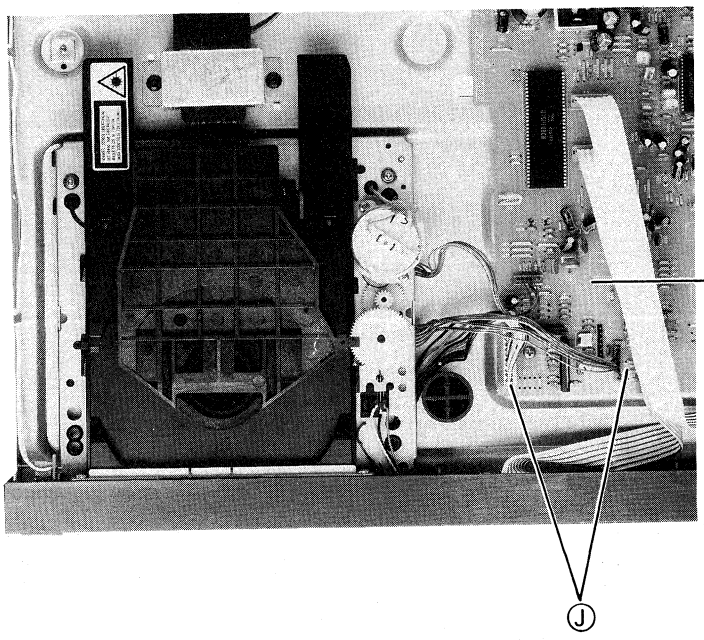
1. Remove front panel assembly and tray panel.
2. Remove two screws Ⓘ, and the mechanism assembly will be removed.

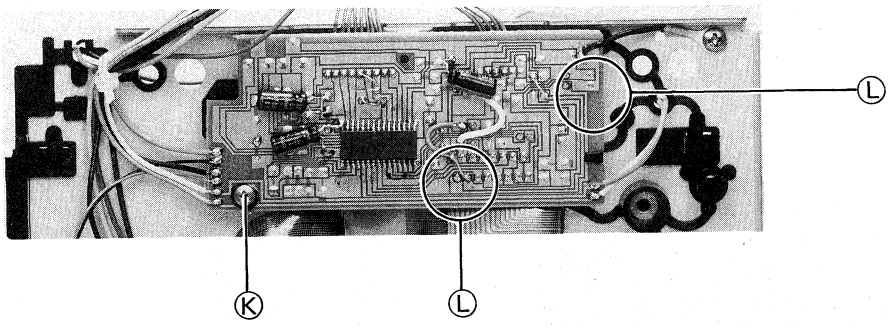
   Note: Unless front panel assembly is removed, mechanism assembly cannot be mounted for transport screw.

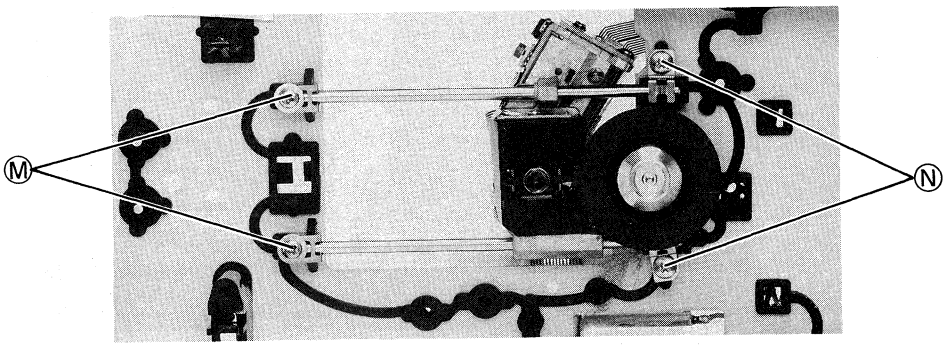


LASER PICKUP REMOVAL

1. Remove two joint wires (J) from mechanism assembly and Main P.C. Board, and mechanism assembly will be removed from chassis.
2. Remove one screw (K) from Mechanism P.C. Board assembly, and two Flexible P.C. Boards (L) from laser pickup.
3. Remove disc tray and clamper lever. Remove four screws (M) and (N) from laser pickup shaft, and the laser pickup shaft and the laser pickup with rack gear will be removed.







ADJUSTMENTS

1. PICKUP REPLACEMENT

(The same procedures as those of LMZ-87S-MK2 are used. So only the shorting point is shown below.)

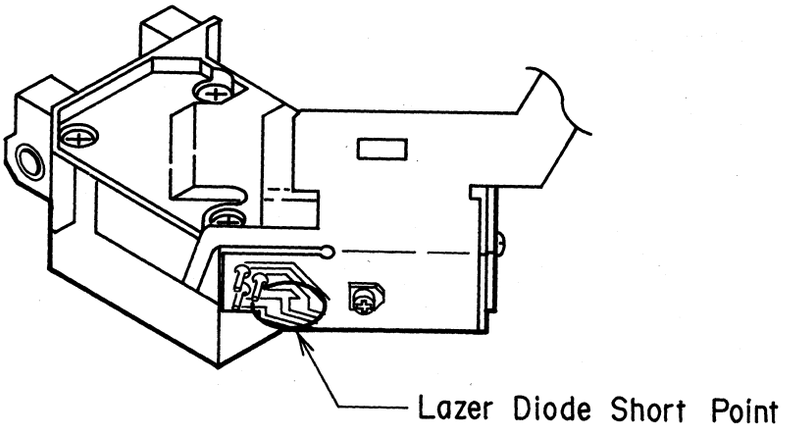


Figure 1

2. VCO ADJUSTMENT

(1) Short-circuit DG terminal and EFM terminal of TP-2.

(2) Connect frequency counter to DG terminal and PLCK terminal. Adjust VR303 so that 4.32 ± 0.01 (MHz) is obtained.

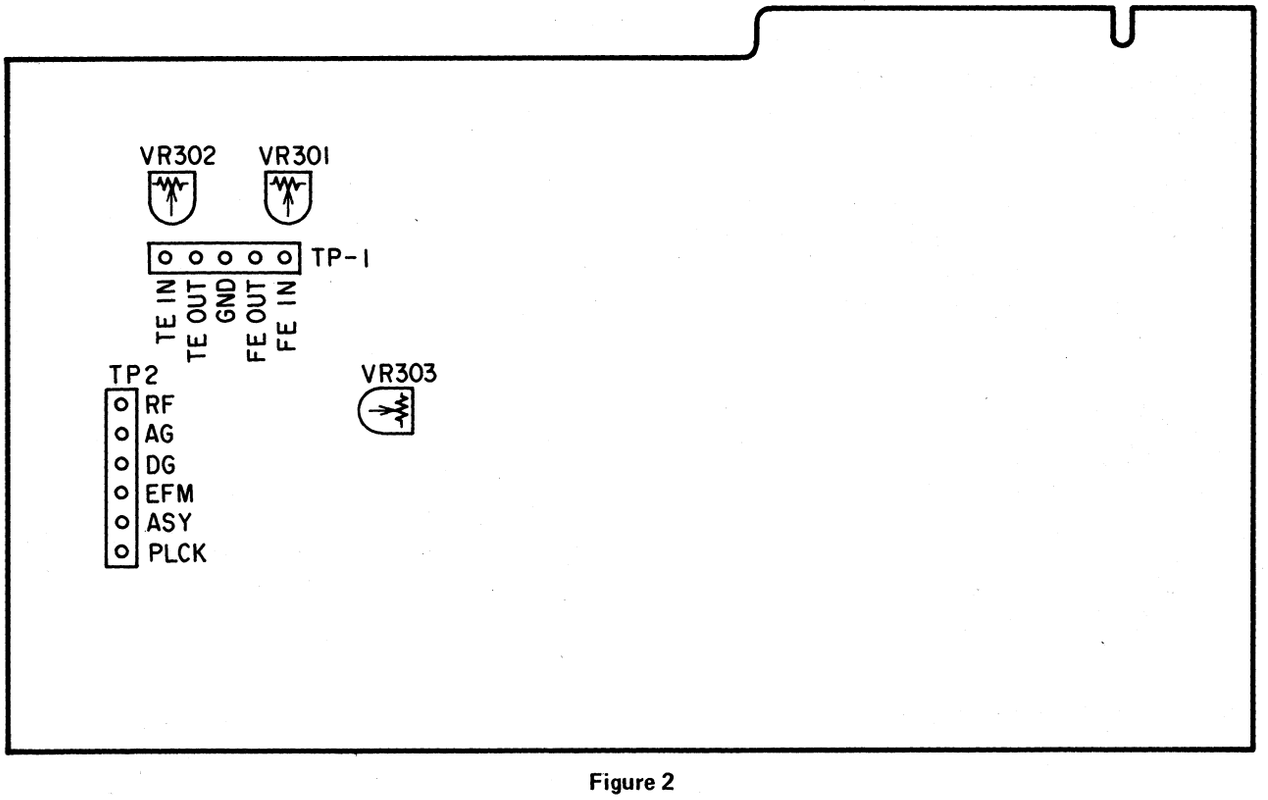


Figure 2

3. FOCUS BALANCE AND TRACKING BALANCE ADJUSTMENT

(1) Focus Balance Adjustment

(i) Connect oscilloscope to RF terminal and AG terminal of TP-2.

(ii) Play back YEDS-7.

(iii) Adjust focus balance adjustment VR (VR101) by turning it so that 3T obtains max. (Refer to Figures 3 and 4.)

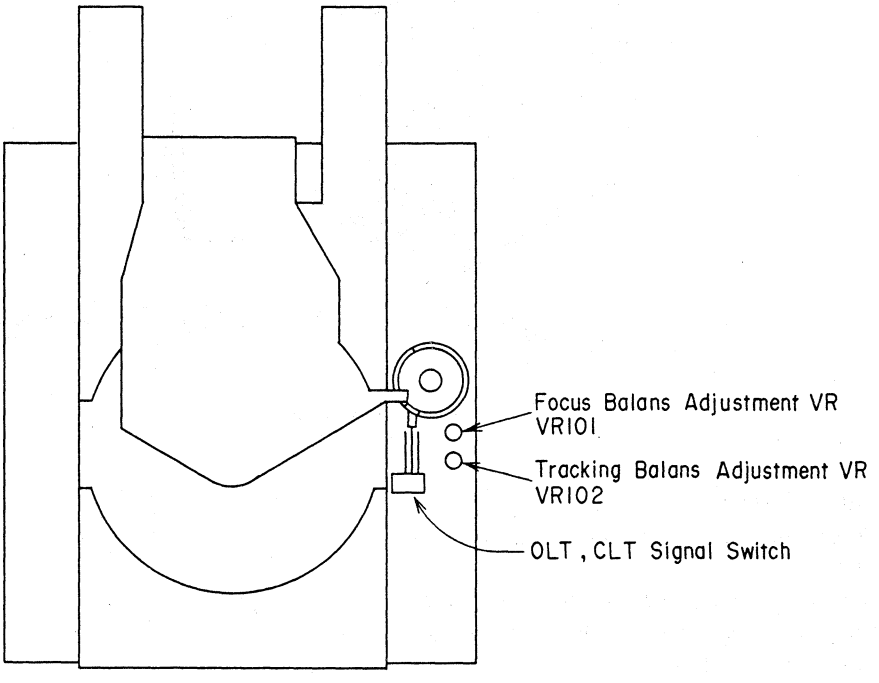


Figure 3

4. TRACKING BALANCE ADJUSTMENT

(1) Connect oscilloscope to TE IN terminal and GND terminal. (Refer to Figure 2.)

(2) Play back YED-7.

(3) Ground OLT SW and CLT SW (center terminal is ground) at the same time and push PLAY KEY.

(4) Adjust tracking balance adjustment VR (VR102) so that positive and negative swing of the waveform show equal as shown in Figure 5.

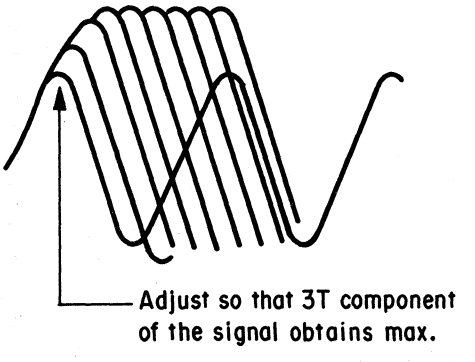


Figure 4

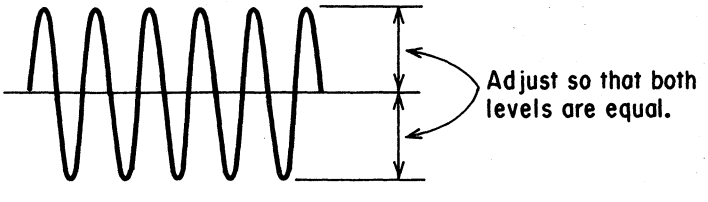
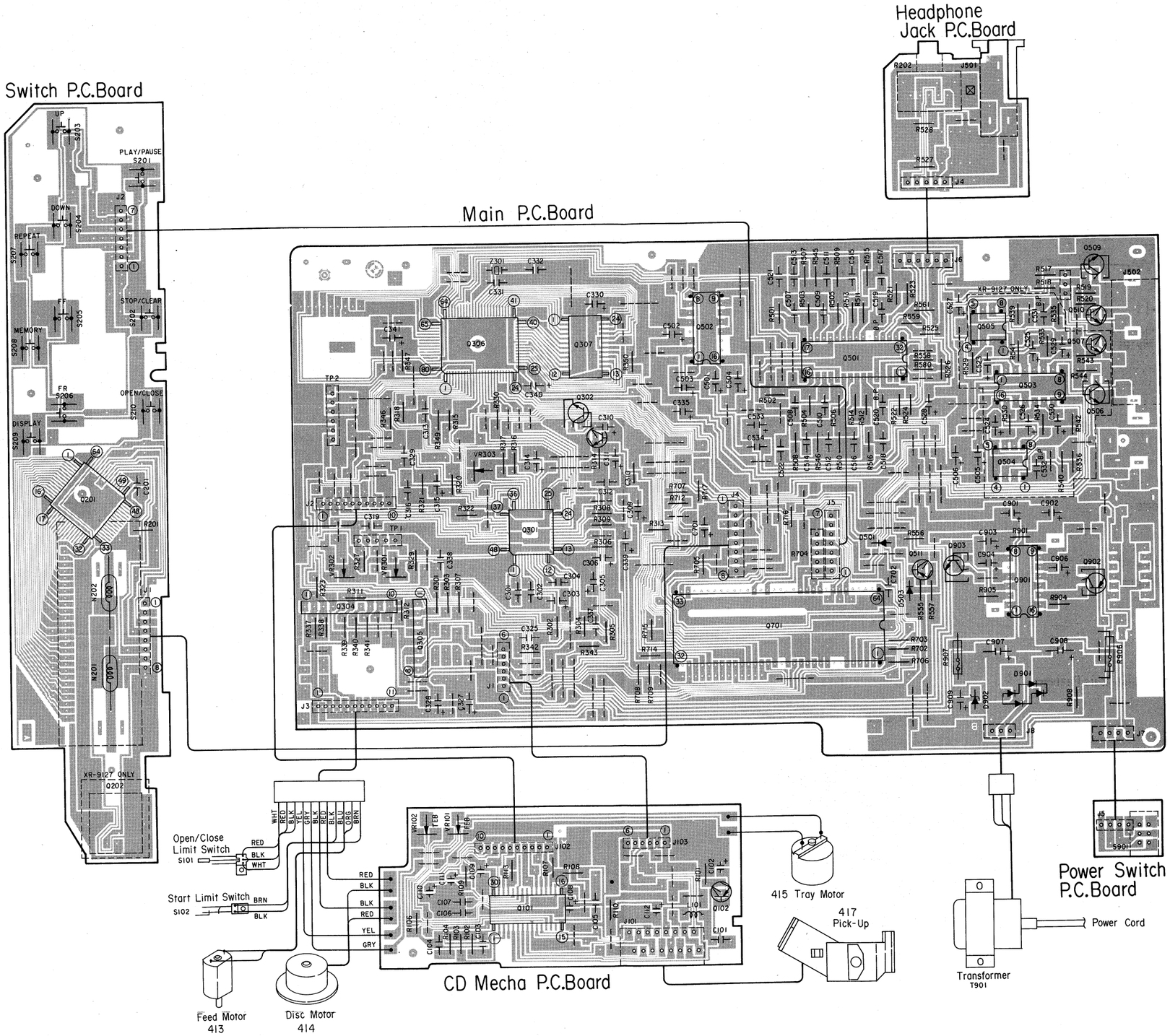


Figure 5

ELECTRICAL PARTS LOCATIONS



Q101

	ON	OFF
1	1Vp-p	0V
2	1Vp-p	0V
3	0V	0V
4	3.0V	0V
5	3.0V	0V
6	-4.5V	-5.0V
7	0V	0V
8	0V	0V
9	0V	0V
10	0V	0V
11	0V	0V
12	0.8V	0V
13	0.8V	0V
14	0V	0V
15	2.0V	-1.0V
16	-1.5V	0V
17	-5.0V	0V
18	0.8V	0V
19	0V	0V
20	0V	0V
21	-4.0V	0V
22	-1.0V	0V
23	-2.0V	0V
24	-1.0V	0V
25	0V	0V
26	3.0V	0V
27	0V	0V
28	5.0V	0V
29	0V	0V
30	5.0V	0V

Q302

	ON	OFF
E	0V	0V
C	4.0V	0V
B	1.0V	5.0V

Q303

	ON	OFF
E	0V	0V
C	0V	0V
B	4.0V	0V

Q304

	ON	OFF
1	-1.0V	0V
2	-1.0V	0V
3	0V	0V
4	0V	0V
5	-8.0V	-10.0V
6	0V	0V
7	0V	0V
8	0V	0V
9	0V	0V
10	9.0V	10.0V

Q305

	ON	OFF
1	9.0V	10.0V
2	1.0V	1.0V
3	2.0V	-0.5V
4	2.0V	0.6V
5	7.0V	-8.0V
6	0V	0V
7	0V	0V
8	0V	0V

Q511

E	1.4V
C	1.3V
B	0.8V

Q902

E	9.0V
C	5.0V
B	8.0V

Q903

E	-9.0V
C	-5.0V
B	-8.0V

Focus and tracking servo gain adjustment procedures are shown below.

1. EQUIPMENTS REGUIRED

(1) Oscillator: Sine wave of kHz, 4Vp-p, with adjustment jig connected.
(2) Oscilloscope
(3) Adjistment Jig: Note 1

Note 1: Adjustment Jig
Make gain adjustment with the circuit shown Figure 6.

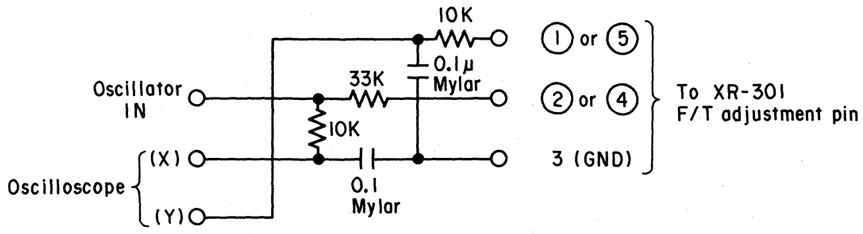


Figure 6

2. ADJUSTMENT PROCEDURES

(1) Connect adjustment jig to XR-301.
(2) Input sine wave from oscillator in PLAY mode.
  (i) Focus: 1.37 KHz, 2.5Vp-p
  (ii) Tracking: 1.2 kHz, 4Vp-p
(3) Observe lissajous pattern using oscilloscope and adjust VR so that wave form shown in Figure 9 or 10 is obtained.

Adjustment Point Lissajous Pattern

TRACKING

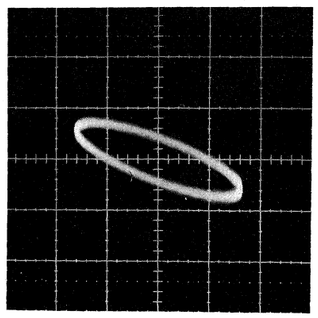


Figure 7

Waveform when adjustment is NG. (Gain is too high)

FOCUS

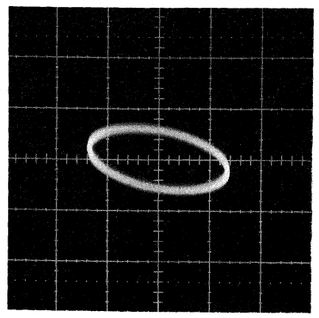


Figure 8

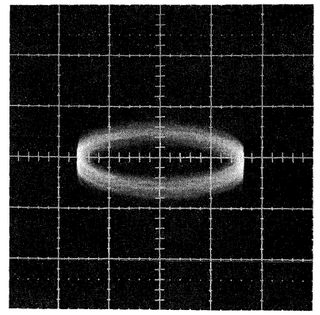


Figure 9

Waveform when adjustment is OK.

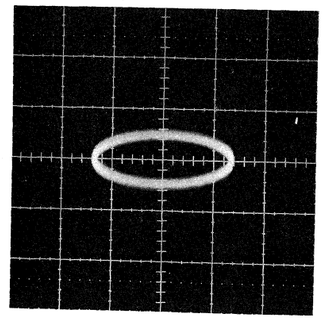


Figure 10

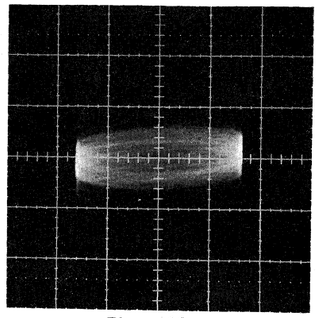


Figure 11

Wavetorm when adjustment is NG. (Gain is too low)

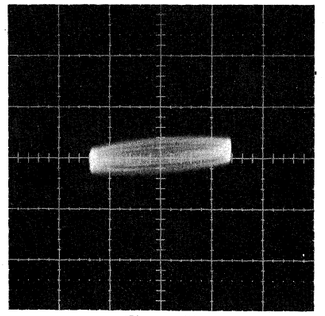
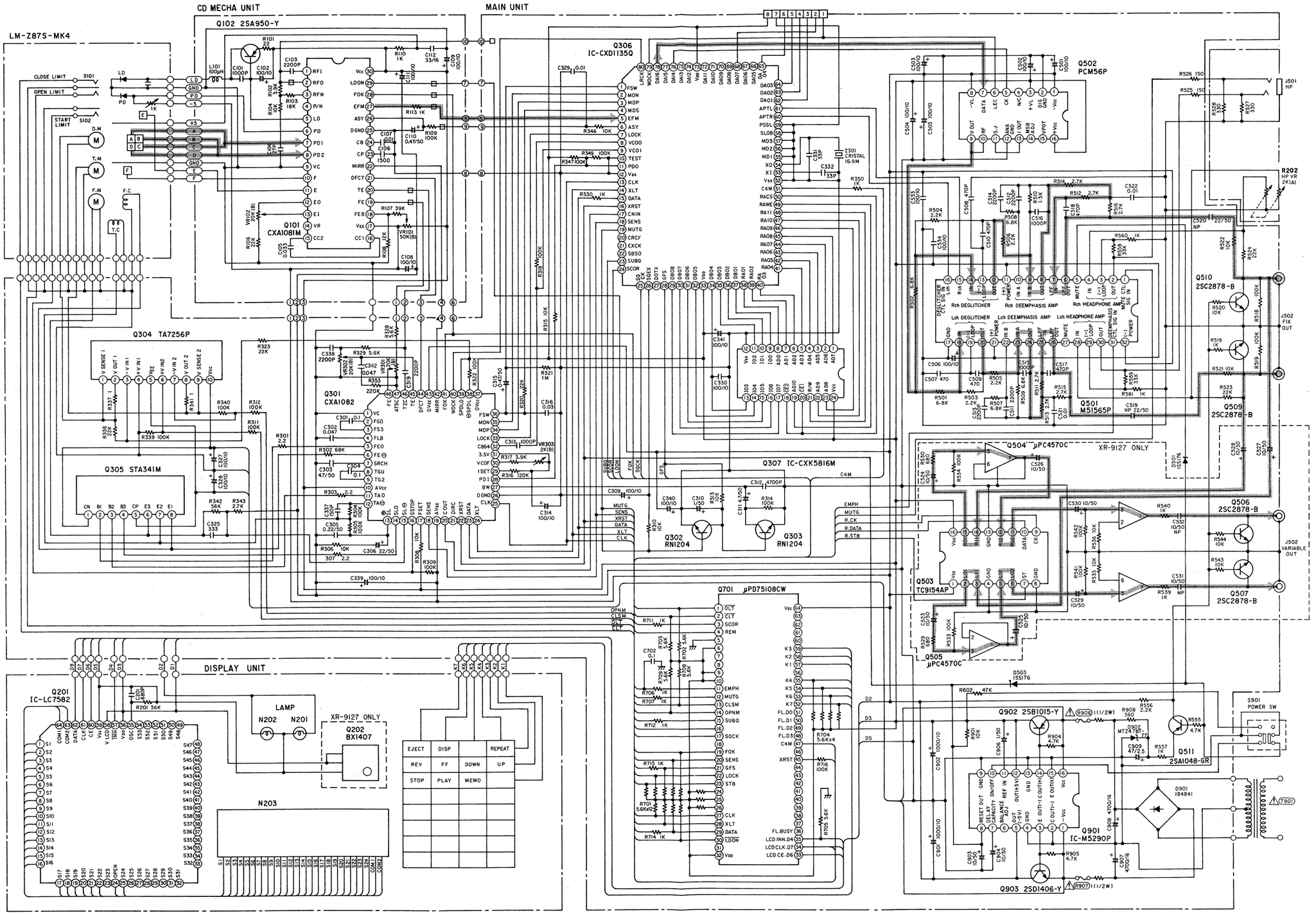


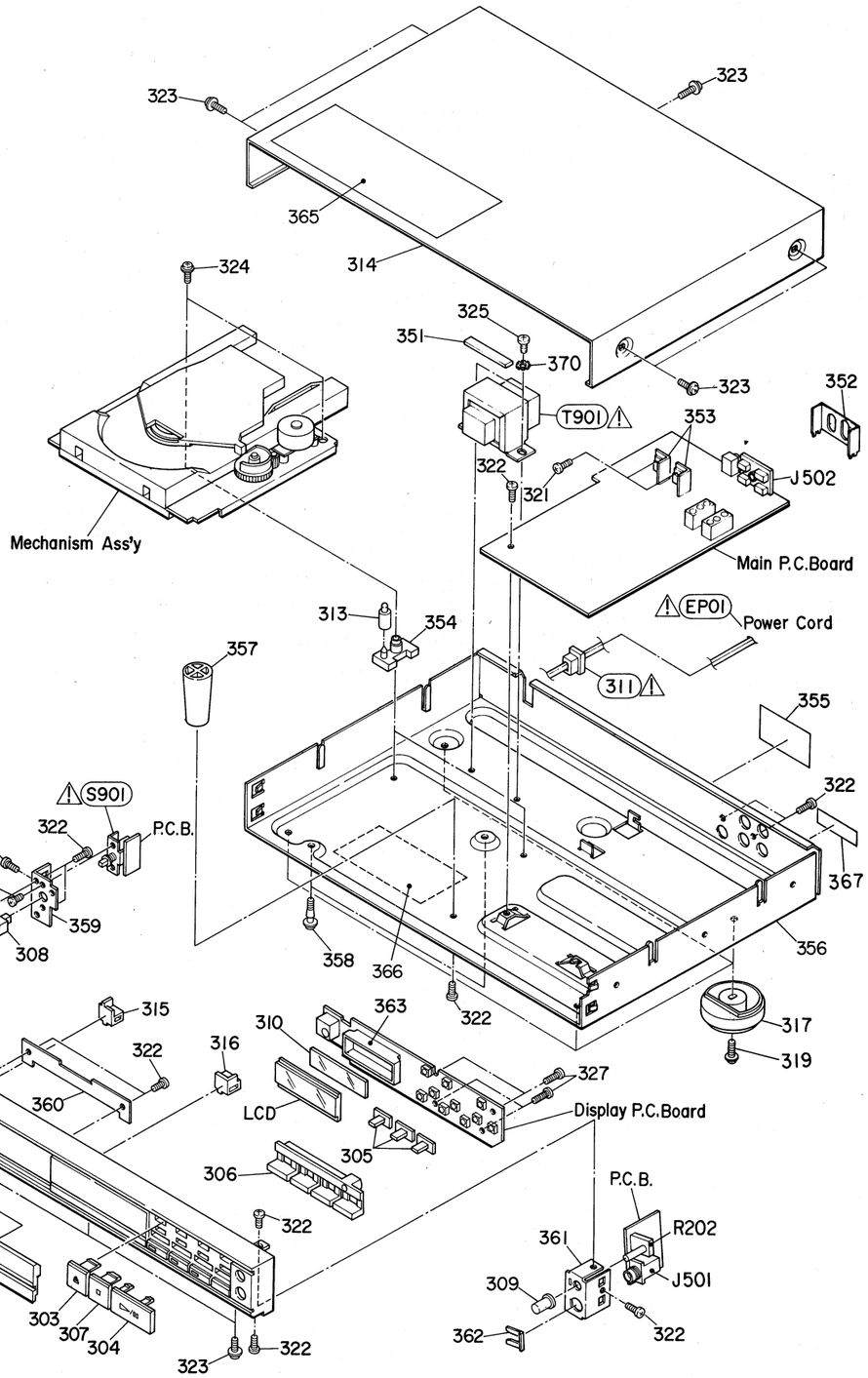
Figure 12

SCHEMATIC DIAGRAM



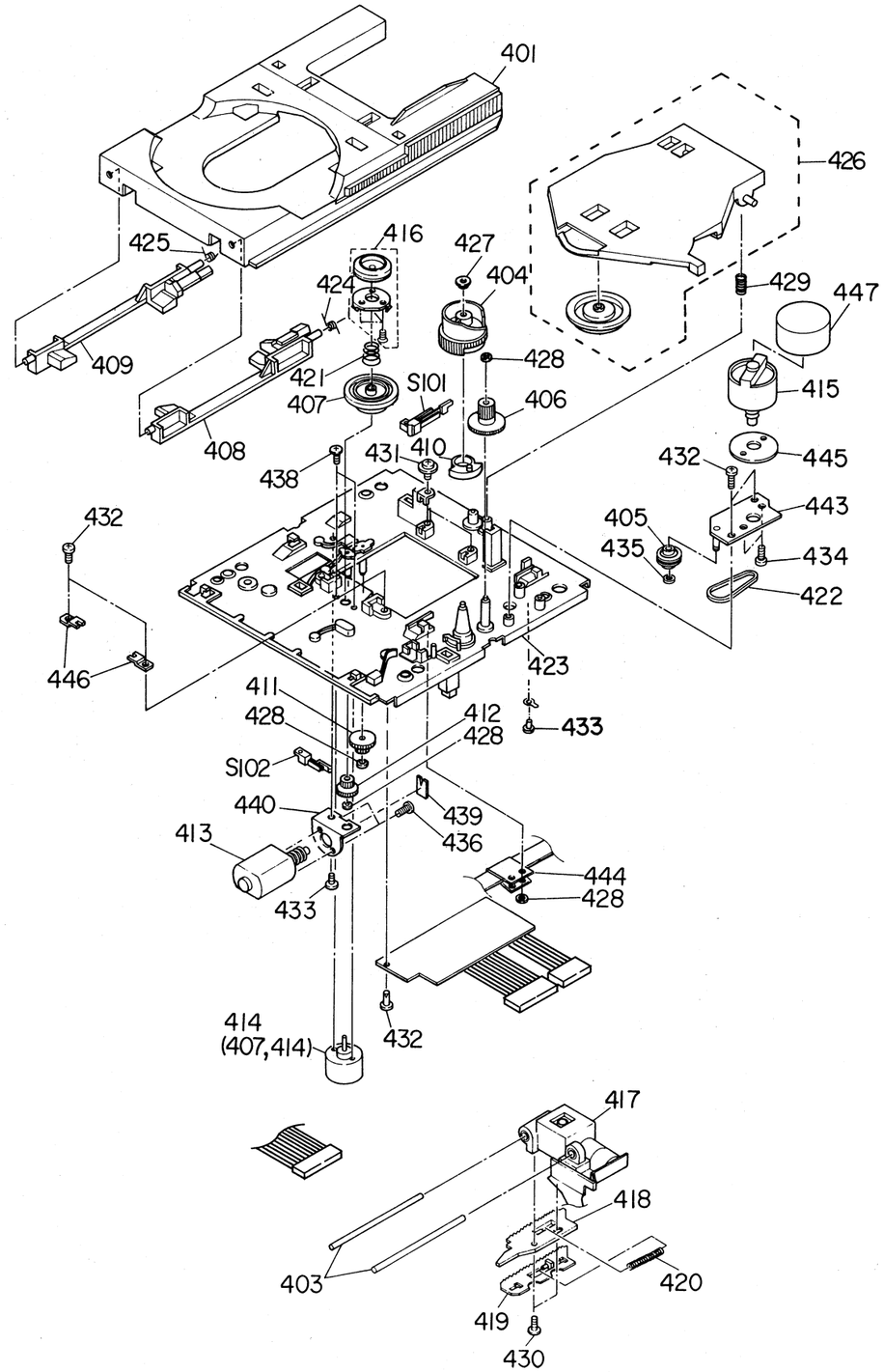
CAUTION:
The ⚠ mark, the Location No. circled with oval in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

CABINET EXPLODED VIEW



NOTE: Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

MECHANISM EXPLODED VIEW



NOTE: Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

MECHANISM PARTS LIST

Location No.	Part No.	Description
401	20778195	DISC TRAY
404	20727166	GEAR, CAM
405	20727207	GEAR PULLEY
406	20727165	GEAR, DRIVE B
407	20723183	TABLE ASSY, DISC
408	20754257	DISC LIFTER, RIGHT
409	20754256	DISC LIFTER, LEFT
410	20754255	CAM SWITCH
411	20727206	PULLEY GEAR, DRIVE A
412	20727205	PULLEY GEAR, DRIVE B
413	25792273	MOTOR ASSY, FEED
414	25792272	MOTOR ASSY, DISC
415	25792271	MOTOR ASSY, TRAY
416	25792142	RING ASSY, CENTER
417	22155243	LASER PICK-UP, DLAD-1
418	20727188	RACK GEAR, A-2
419	20727189	RACK GEAR, B-2
420	25777533	SPRING
421	25777637	SPRING, CENTER RIMG
422	25759094	BELT
423	20743204	MAIN CHASSIS
424	25778401	SPRING
425	25778400	SPRING
426	25792076	LEVER ASSY, CLAMPER
427	25783444	BUSHING, BLACK
428	25783443	BUSHING
429	25777531	SPRING
430	22707670	SCREW, 1.7X4MM, B, PAN
431	22708208	SCREW, 2.6X10MM, Z, 2DTPAN
432	22707979	SCREW, 2.6X8MM, Z, 2DTBID
433	22707350	SCREW, 2.6X5MM, Z, DTBID
434	22708528	SCREW, 2.6X3MM, Z, BID
438	22707725	SCREW, 1.7X2.5MM, N, PAN
439	25779512	SPRING

Location No.	Part No.	Description

CABINET PARTS LIST

CAUTION:
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Location No.	Part No.	Description
301	20017383	PANEL ASSY, FRONT (XR-9127)
301	20017387	PANEL ASSY, FRONT (XR-9117)
302	20832120	PANEL, TRAY
303	20872282	BUTTON, OPEN/CLOSE
304	20872280	BUTTON, PLAY/PAUSE
305	20872284	BUTTON MEMORY
306	20872319	BUTTON, UP/DOWN/FF/REVERSE 4P
307	20872281	BUTTON, STOP/CLEAR
308	20872285	BUTTON POWER
309	20872286	KNOB VOLUME
310	20846100	DIFFUSER
⚠ 311	25844322	BUSH
313	25761545	CUSHION, MECHANISM
314	20823143	TOP COVER
315	22766319	CUSHION
316	22766320	CUSHION
317	20842207	FOOT
319	22707798	SCREW, 3.0X10MM, Z, 2DTBID
321	22708539	SCREW, 3.0X6MM, Z, BID
322	22707842	SCREW, 3.0X8MM, Z, 2DTBID
323	22707456	SCREW, 3.0X8MM, B, FLDT
324	22708045	SCREW, 3.0X8MM, Z, 2DTPAN
325	22707040	SCREW, 4.0X6MM, B, BID
327	22707844	SCREW, 3.0X10MM, R, 2DTBID
355	22907424	NAME PLATE (USA-9127)
355	22907425	NAME PLATE (CANADA-9127)
355	22907426	NAME PLATE (EUROPE-9127)
355	22907427	NAME PLATE (UK-9127)
355	22907446	NAME PLATE (EUROPE-9117)
355	22907447	NAME PLATE (UK-9117)
365	22907335	LABEL, CAUTION, SCREW
367	22907153	LABEL, LASER-2

PARTS LIST

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ABBREVIATIONS

1. **CAPACITOR:** CD = Ceramic Disk, PF = Plastic Film, BL = Barrier Layer, EL = Electrolytic, MY = Mylar, PP = Polypropylene, PS = Polystyrene, TT = Tantalum, PE = Polyethylene
   MFD = Microfarad, PF = Picofarad, V = Voltage, NP = Non Polarity
2. **RESISTOR:** CF = Carbon Film, CC = Carbon Composition, OMF = Oxide Metal Film, MF = Metal Film
   K = Kilo (1000), M = Mega (1000000)
3. **TOLERANCE**

Symbol	G	J	K	M	N	Z	P
%	±2	±5	±10	±20	±30	−20+80	0+100

Symbol	C	D
pF	±0.25	±0.5

IC/TRANSISTORS (Main P.C. Board)

Location No.	Part No.	Description
Q201	22128105	IC, LC7582
Q202	22117931	IC, BX1407-RM (XR-9127)
Q301	22128084	IC, CXA1082AQ
Q302	A6002040	TRANSISTOR, RN1204, CHIP
Q303	A6002040	TRANSISTOR, RN1204, CHIP
Q304	B0320320	IC, TA7256P
Q305	22128110	IC, STA341M
Q306	22128086	IC, CXD1135Q
Q307	22117936	IC, CXK5816M
Q501	22128106	IC, M51565P
Q502	22128109	IC, PCM56P
Q503	B0411545	IC, TC9154AP (XR-9127)
Q504	22128264	IC, UPC4570C (XR-9127)
Q505	22128264	IC, UPC4570C (XR-9127)
Q506	A6342210	TRANSISTOR, 2SC2878-B (XR-9127)
Q507	A6342210	TRANSISTOR, 2SC2878-B (XR-9127)
Q509	A6342210	TRANSISTOR, 2SC2878-B
Q510	A6342210	TRANSISTOR, 2SC2878-B
Q511	A6534440	TRANSISTOR, 2SA1048-GR
Q701	22128108	IC, UPD75108CW
Q901	22128107	IC, M5290P
Q902	A6639320	TRANSISTOR, 2SB1015-Y
Q903	A6868020	TRANSISTOR, 2SD1406-Y

DIODES

Location No.	Part No.	Description
D501	A7160570	DIODE, 1SS176
D503	A7160570	DIODE, 1SS176
D901	A7670800	DIODE, 1B4B41
D902	A7116515	DIODE, 04AZ6.2-Y, ZENER

IC/TRANSISTORS (CD Mechanism P.C. Board)

Location No.	Part No.	Description
Q101	22128085	IC, CXA1081M
Q102	A6532940	TRANSISTOR, 2SA950-Y

ELECTRICAL PARTS

Location No.	Part No.	Description
⚠EP01	22176286	POWER CORD (EUROPE)
⚠EP01	22176628	POWER CORD (UK)
J501	22198062	JACK, 6.0MM HEAD PHONE
J502	22198221	JACK, US-4P
L101	22211343	CHOKE COIL, 100UH
N201	22113621	LAMP, 6V, 100MA
N202	22113621	LAMP, 6V, 100MA
N203	22104673	DISPLAY, LIQUID CRYSTAL
S201	22196968	KEY SWITCH PLAY
S202	22196968	KEY SWITCH STOP
S203	22196968	KEY SWITCH UP
S204	22196968	KEY SWITCH DOWN
S205	22196968	KEY SWITCH FF
S206	22196968	KEY SWITCH FR
S207	22196968	KEY SWITCH REPEAT
S208	22196968	KEY SWITCH MEMORY
S209	22196968	KEY SWITCH DISPLAY
S210	22196968	KEY SWITCH
⚠ S901	22196913	PUSH SWITCH
⚠ T901	22225643	POWER TRANSFORMER (USA,CANADA)
⚠ T901	22225644	POWER TRANSFORMER (EUROPE)
⚠ T901	22225645	POWER TRANSFORMER (UK)
Z301	22153498	OSCILLATOR, CRYSTAL, 16.9MA

Location No.	Part No.	Description

CAPACITORS (Main P.C. Board)

C201	20343681	CD, 680PF, 50V, K
C301	20371104	MY, 0.1MFD, 50V, J
C302	20371473	MY, 0.047MFD, 50V, J
C303	20418479	EL, 4.7MFD, 50V
C304	20318104	BL, 0.1MFD, 25V, K
C305	20418228	EL, 0.22MFD, 50V
C306	20418220	EL, 22MFD, 50V
C309	20414101	EL, 100MFD, 10V
C310	20418109	EL, 1MFD, 50V
C311	20419479	EL, 4.7MFD, 50V
C312	20371472	MY, 4700PF, 50V, J
C313	20371102	MY, 1000PF, 50V, J
C314	20414101	EL, 100MFD, 10V
C315	20418478	EL, 0.47MFD, 50V
C316	20371333	MY, 0.033MFD, 50V, J
C319	20371222	MY, 2200PF, 50V, J
C325	20371333	MY, 0.033MFD, 50V, J
C327	20414101	EL, 100MFD, 10V
C328	20414101	EL, 100MFD, 10V
C329	20371103	MY, 0.01MFD, 50V, J
C330	20414101	EL, 100MFD, 10V
C331	20311330	CD, 33PF, 50V, J
C332	20311330	CD, 33PF, 50V, J
C334	20414101	EL, 100MFD, 10V
C337	20311151	CD, 150PF, 50V, J
C338	20311222	CD, 2200PF, 50V, J(SL)
C339	20414101	EL, 100MFD, 10V
C340	20414101	EL, 100MFD, 10V
C341	20414101	EL, 100MFD, 10V
C501	20414101	EL, 100MFD, 10V
C502	20414101	EL, 100MFD, 10V
C503	20414101	EL, 100MFD, 10V
C504	20414101	EL, 100MFD, 10V
C505	20414101	EL, 100MFD, 10V
C506	20414101	EL, 100MFD, 10V
C507	20381471	PP, 470PF, 100V, J
C508	20381471	PP, 470PF, 100V, J
C509	20381471	PP, 470PF, 100V, J
C510	20381471	PP, 470PF, 100V, J
C511	20371222	MY, 2200PF, 50V, J
C512	20371222	MY, 2200PF, 50V, J
C513	20371222	MY, 2200PF, 50V, J
C514	20371222	MY, 2200PF, 50V, J
C515	20371102	MY, 1000PF, 50V, J
C516	20371102	MY, 1000PF, 50V, J
C517	20381471	PP, 470PF, 100V, J
C518	20381471	PP, 470PF, 100V, J
C519	20454220	EL, 22MFD, 10V
C520	20454220	EL, 22MFD, 10V
C521	20371103	MY, 0.01MFD, 50V, J
C522	20371103	MY, 0.01MFD, 50V, J
C523	20418100	EL, 10MFD, 50V (XR-9127)
C524	20418100	EL, 10MFD, 50V (XR-9127)
C525	20418100	EL, 10MFD, 50V (XR-9127)
C526	20418100	EL, 10MFD, 50V (XR-9127)
C527	20418100	EL, 10MFD, 50V (XR-9127)
C528	20418100	EL, 10MFD, 50V (XR-9127)
C529	20418100	EL, 10MFD, 50V (XR-9127)
C530	20418100	EL, 10MFD, 50V (XR-9127)
C531	20457100	EL, 10MFD, 35V, NP (XR-9127)
C532	20457100	EL, 10MFD, 35V, NP (XR-9127)
C533	20414101	EL, 100MFD, 10V
C534	20414101	EL, 100MFD, 10V
C701	20311104	CD, 0.1MFD, 50V, J
C702	20311104	CD, 0.1MFD, 50V, J
C901	20418102	EL, 1000MFD, 50V
C902	20418102	EL, 1000MFD, 50V
C903	20418100	EL, 10MFD, 50V
C904	20418100	EL, 10MFD, 50V
C906	20418109	EL, 1MFD, 50V
C907	20415472	EL, 4700MFD, 16V
C908	20415472	EL, 4700MFD, 16V
C909	20418109	EL, 1MFD, 50V

PC BOARD - 1 (CD Mecha. P.C. Board)

C101	20353102	CD, 1000PF, 50V, K
C102	20414101	EL, 100MFD, 10V
C103	20329222	BL, 2200PF, 16V, M
C104	20311270	CD, 27PF, 50V, J
C105	20311333	CD, 0.033MFD, 50V, J
C106	20311103	CD, 0.01MFD, 50V, J
C107	20311103	CD, 0.01MFD, 50V, J
C108	20414101	EL, 100MFD, 10V
C109	20414101	EL, 100MFD, 10V
C110	20418478	EL, 0.47MFD, 50V
C111	20433101	EL, 100MFD, 6.3V
C112	20415330	EL, 33MFD, 16V

RESISTORS (Main P.C. Board)

R201	20512563	CF, 56K OHM, 1/6W, J
R202	22611012	VARIABLE, 2K OHM, A
R301	20512229	CF, 2.2 OHM, 1/6W, J
R302	20512683	CF, 68K OHM, 1/6W, J
R303	20512229	CF, 2.2 OHM, 1/6W, J
R304	20512104	CF, 100K OHM, 1/6W, J
R305	20512823	CF, 82K OHM, 1/6W, J
R306	20512123	CF, 12K OHM, 1/6W, J
R307	20512229	CF, 2.2 OHM, 1/6W, J
R308	20512564	CF, 560K OHM, 1/6W, J
R309	20512104	CF, 100K OHM, 1/6W, J
R310	20512103	CF, 10K OHM, 1/6W, J
R311	20512823	CF, 82K OHM, 1/6W, J
R312	20512823	CF, 82K OHM, 1/6W, J
R313	20512103	CF, 10K OHM, 1/6W, J

Location No.	Part No.	Description	
R314	20512104	CF, 100K OHM, 1/6W, J	
R315	20512103	CF, 10K OHM, 1/6W, J	
R316	20512124	CF, 120K OHM, 1/6W, J	
R317	20512392	CF, 3.9K OHM, 1/6W, J	
R318	20512104	CF, 100K OHM, 1/6W, J	
R320	20512223	CF, 22K OHM, 1/6W, J	
R321	20512105	CF, 1M OHM, 1/6W, J	
R322	20512104	CF, 100K OHM, 1/6W, J	
R323	20512223	CF, 22K OHM, 1/6W, J	
R327	20512562	CF, 5.6K OHM, 1/6W, J	
R329	20512562	CF, 5.6K OHM, 1/6W, J	
R330	20512102	CF, 1K OHM, 1/6W, J	
R337	20512109	CF, 1 OHM, 1/6W, J	
R338	20512223	CF, 22K OHM, 1/6W, J	
R339	20512104	CF, 100K OHM, 1/6W, J	
R340	20512104	CF, 100K OHM, 1/6W, J	
R341	20512109	CF, 1 OHM, 1/6W, J	
R342	20512563	CF, 56K OHM, 1/6W, J	
R343	20512272	CF, 2.7K OHM, 1/6W, J	
R346	20512103	CF, 10K OHM, 1/6W, J	
R347	22570747	OMF, 100K OHM, 1/6W, F	
R349	22570747	OMF, 100K OHM, 1/6W, F	
R350	20512102	CF, 1K OHM, 1/6W, J	
R352	20512222	CF, 2.2K OHM, 1/6W, J	
R501	20512682	CF, 6.8K OHM, 1/6W, J	
R502	20512682	CF, 6.8K OHM, 1/6W, J	
R503	20512222	CF, 2.2K OHM, 1/6W, J	
R504	20512222	CF, 2.2K OHM, 1/6W, J	
R505	20512222	CF, 2.2K OHM, 1/6W, J	
R506	20512222	CF, 2.2K OHM, 1/6W, J	
R507	20512682	CF, 6.8K OHM, 1/6W, J	
R508	20512682	CF, 6.8K OHM, 1/6W, J	
R509	20512682	CF, 6.8K OHM, 1/6W, J	
R510	20512682	CF, 6.8K OHM, 1/6W, J	
R511	20512272	CF, 2.7K OHM, 1/6W, J	
R512	20512272	CF, 2.7K OHM, 1/6W, J	
R513	20512272	CF, 2.7K OHM, 1/6W, J	
R514	20512272	CF, 2.7K OHM, 1/6W, J	
R515	20512272	CF, 2.7K OHM, 1/6W, J	
R516	20512272	CF, 2.7K OHM, 1/6W, J	
R517	20512104	CF, 100K OHM, 1/6W, J	
R518	20512104	CF, 100K OHM, 1/6W, J	
R519	20512103	CF, 10K OHM, 1/6W, J	
R520	20512103	CF, 10K OHM, 1/6W, J	
R521	20512102	CF, 1K OHM, 1/6W, J	
R522	20512102	CF, 1K OHM, 1/6W, J	
R523	20512223	CF, 22K OHM, 1/6W, J	
R524	20512223	CF, 22K OHM, 1/6W, J	
R525	20512151	CF, 150 OHM, 1/6W, J	
R526	20512151	CF, 150 OHM, 1/6W, J	
R527	20512331	CF, 330 OHM, 1/6W, J	
R528	20512331	CF, 330 OHM, 1/6W, J	
R529	20512681	CF, 680 OHM, 1/6W, J	(XR-9127)
R530	20512681	CF, 680 OHM, 1/6W, J	(XR-9127)
R533	20512104	CF, 100K OHM, 1/6W, J	(XR-9127)

Location No.	Part No.	Description	
R534	20512124	CF, 120K OHM, 1/6W, J	(XR-9127)
R535	20512104	CF, 100K OHM, 1/6W, J	(XR-9127)
R536	20512104	CF, 100K OHM, 1/6W, J	(XR-9127)
R539	20512102	CF, 1K OHM, 1/6W, J	(XR-9127)
R540	20512102	CF, 1K OHM, 1/6W, J	(XR-9127)
R541	20512104	CF, 100K OHM, 1/6W, J	(XR-9127)
R542	20512104	CF, 100K OHM, 1/6W, J	(XR-9127)
R543	20512103	CF, 10K OHM, 1/6W, J	(XR-9127)
R544	20512103	CF, 10K OHM, 1/6W, J	(XR-9127)
R555	20512472	CF, 4.7K OHM, 1/6W, J	
R556	20512222	CF, 2.2K OHM, 1/6W, J	
R557	20512102	CF, 1K OHM, 1/6W, J	
R558	20512333	CF, 33K OHM, 1/6W, J	
R559	20512333	CF, 33K OHM, 1/6W, J	
R591	22611012	VARIABLE, 2K OHM, A	
R701	22540830	COMPOSITE PARTS, RESISTOR	
R702	20512562	CF, 5.6K OHM, 1/6W, J	
R703	20512562	CF, 5.6K OHM, 1/6W, J	
R704	22540776	COMPOSITE PARTS	
R705	20512562	CF, 5.6K OHM, 1/6W, J	
R706	20512102	CF, 1K OHM, 1/6W, J	
R707	20512102	CF, 1K OHM, 1/6W, J	
R708	20512562	CF, 5.6K OHM, 1/6W, J	
R709	20512562	CF, 5.6K OHM, 1/6W, J	
R710	20512562	CF, 5.6K OHM, 1/6W, J	
R711	20512102	CF, 1K OHM, 1/6W, J	
R712	20512102	CF, 1K OHM, 1/6W, J	
R714	20512102	CF, 1K OHM, 1/6W, J	
R715	20512102	CF, 1K OHM, 1/6W, J	
R716	20512104	CF, 100K OHM, 1/6W, J	
R901	20512103	CF, 10K OHM, 1/6W, J	
R904	20512472	CF, 4.7K OHM, 1/6W, J	
R905	20512472	CF, 4.7K OHM, 1/6W, J	
R906	20532109	FUSIBLE, 1 OHM, 1/2W, J	
R907	20532109	FUSIBLE, 1 OHM, 1/2W, J	
R908	20512391	CF, 390 OHM, 1/6W, J	
R908	20512561	CF, 560 OHM, 1/6W, J	
VR301	22658945	VARIABLE, SEMI FIXED, 20K-B	
VR302	22658945	VARIABLE, SEMI FIXED, 20K-B	
VR303	22658942	VARIABLE, SEMI FIXED, 2K-B	

PC BOARD - 1 (CD Mecha. P.C. Board)

R101	20512220	CF, 22 OHM, 1/6W, J
R102	20512392	CF, 3.9K OHM, 1/6W, J
R102	22658762	VARIABLE, SEMI FIXED, 20K-B
R103	20512183	CF, 18K OHM, 1/6W, J
R104	20512103	CF, 10K OHM, 1/6W, J
R106	20512223	CF, 22K OHM, 1/6W, J
R107	20512392	CF, 3.9K OHM, 1/6W, J
R108	20512123	CF, 12K OHM, 1/6W, J
R109	20512104	CF, 100K OHM, 1/6W, J
R110	20512102	CF, 1K OHM, 1/6W, J
R113	20512102	CF, 1K OHM, 1/6W, J

Location No.	Part No.	Description
		ACCESSORIES
AC01	22908287	OWNER'S MANUAL (USA)
AC01	22908288	OWNER'S MANUAL (EUROPE)
AC01	22908289	OWNER'S MANUAL (UK)

Location No.	Part No.	Description

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105, JAPAN